# Osteoporosis in Kansas

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**Osteoporosis** (oss-tee-oh-puh-ro-sis) is a disease that causes bones to lose mass and become brittle, which can lead to rounded shoulders, loss of height, and bone fractures <sup>1</sup>.

- In the United States, an estimated 10 million adults over the age of 50 have osteoporosis <sup>2</sup>.
- In Kansas, approximately 100,000 (12%) of adults over the age of 50 have osteoporosis <sup>3</sup>
  - 18% of adult Kansans 65 years and older have osteoporosis

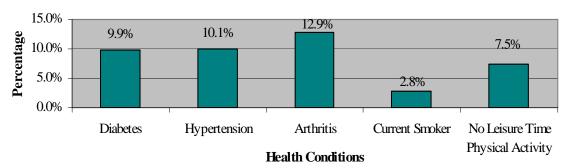
# **RISK FACTORS**

The amount of bone mass a person has as a young adult and the rate at which it is lost with increasing age determines a person's risk for osteoporosis <sup>1</sup>. There are many factors associated with osteoporosis.

- Low calcium intake
- Physical inactivity
- More than 2 alcoholic drinks per day (heavy alcohol consumption)
- Tobacco use

- Use of cortisone or thyroid hormones
- Heredity
- Reduced levels of estrogen
- Anorexia nervosa or bulimia
- Women

### Percentage of Adults with Osteoporosis by Health Conditions 2005 Kansas BRFSS Data



- Approximately 10% of adults with diabetes and 10% of adults with hypertension have osteoporosis<sup>3</sup>
- 13% of adults with doctor-diagnosed arthritis have osteoporosis <sup>3</sup>
- An estimated 8% of adults who do not participate in leisure time physical activity have osteoporosis <sup>3</sup>

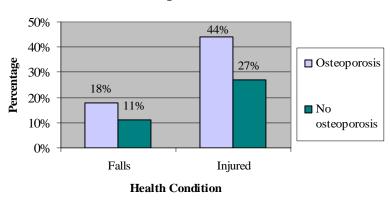
## **ECONOMIC IMPACT**

**National Cost Estimates:** Fractures are the biggest problem among most individuals with osteoporosis. Approximately 1.5 million osteoporosis related fractures occur in the United States every year. On average the annual direct care expenditure for osteoporosis related fractures was approximately \$15 billion per year in 2002.

**Kansas Cost Estimates:** Based on the national figure for osteoporosis related fractures, an estimated 12,176 osteoporosis related fractures occur in Kansas. Based on the national cost estimates, the direct care expenditures for osteoporosis related fractures in Kansas would be roughly \$121 million.

## FALLS AND OSTEOPROSIS

### Percentage of Falls and Fall Injuries by Osteoporosis Status



For individuals with osteoporosis, falls increase their risk of fracturing bones. <sup>2</sup>

- The prevalence of falls during the past 3 months is highest among adults 50 years and older with osteoporosis compared to adults 50 years and older without osteoporosis (18% vs. 11% respectively). <sup>3</sup>
- The prevalence of injury from falls within the past 3 months is highest among adults 50 years and older with osteoporosis than adults without osteoporosis (44% vs. 27% respectively). <sup>3</sup>

## **PREVENTION**

## **EDUCATION AND EXERCISE PROGRAMS**

• Individuals with osteoporosis can reduce the risk of injury and increase strength and flexibility by participating in the Arthritis Foundation Self-Help program, Arthritis Foundation Exercise program, Chronic Disease Self Management program or EnhanceFitness. For a listing of program locations, go to www.kdheks.gov/arthritis.

#### **NUTRITION**

- Calcium is a major component of bones. Adults should consume between 1000 mg and 1300 mg of calcium per day depending upon their age and gender. Sources of calcium include dairy products, broccoli, kale, sardines with bones, and foods fortified with calcium such as orange juice and breakfast cereals. 1-2
- Other nutrients important for bone health include: Vitamin D, phosphorus and magnesium. 1-2
- To obtain these bone health nutrients, it is important to eat a well balanced diet including at least 5 servings of fruits and vegetables each day. <sup>2</sup> One out of 5 (20%) adult Kansans consume fruits and vegetables at least 5 times per day. <sup>3</sup>

#### **FALLS**

To reduce the risk of falls, individuals should:

- Receive regular vision checkups
- Eliminate (where possible) medications and/or dosages that may cause dizziness, low blood pressure, or confusion
- Remove environmental obstacles that can lead to falls (remove throw rugs, install night lights, install railings on stairs, wear rubber soled shoes, etc). <sup>2</sup>

#### **PHYSICAL ACTIVITY**

- Regular physical activity can reduce the risk of numerous chronic diseases and conditions such as hypertension, diabetes, certain types of arthritis, and osteoporosis.
- Physical activity is important throughout the life span. Physical activity during childhood can promote bone growth while physical activity during adulthood maintains bone mass <sup>1-2</sup>
- It is recommended that adults participate in moderate physical activity (walking, gardening, vacuuming) 30 minutes or more per day, 5 or more days per week OR vigorous physical activity (running, aerobics) 20 minutes or more per day, 3 or more days per week. <sup>1-2</sup> In 2005, approximately 1 out of 2 (51%) adult Kansans did not participate in the recommended amount of physical activity. <sup>3</sup>
- The best exercise for bones is weight bearing
- exercise. It is recommended that adults participate in weight bearing exercise 30 minutes for 3 to 5 days per week.

#### References

- 1. Arthritis Foundation. Osteoporosis 2000.
- 2. U.S. Department of Health and Human Services. *Bone Health and Osteoporosis: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Office of the Surgeon General, 2004.
- 3. 2005 Kansas BRFSS http://www.kdheks.gov/brfss/index.html